AMENDMENT TO THE CLAIMS

1. (Previously Canceled)

2. (Canceled).

3. (Previously Amended) The detection method according to claim 5, wherein the cDNA expression library is contained in a phage vector.

4. (Canceled)

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5. (Presently Amended) A method for ~~detecting~~ in vitro detection of a gene ~~of~~ encoding a drug-targeted protein, comprising

linking an antigenic substance to a drug via a chemical cross-linker to form a probe, wherein the drug is non-protein and *per se* exhibits no antigenicity and wherein the antigenic substance is serum albumin or fluorescein isothiocyanate;

~~contacting a membrane to a phage plaque, with a host cell, expressing protein from a cDNA expression library;~~

~~contacting the probe to the membrane;~~

~~detecting a probe-bound phage~~

screening for the gene encoding a protein targeted by said drug, wherein said protein is expressed from a cDNA expression library containing genes of an organism to which the drug is to be administered, by using an antigen-antibody reaction between the antigenic substance of the probe and a labeled antibody specific for the antigenic substance; and

determining the gene sequence of the protein expressed from the cDNA expression library contained within the probe-bound phage.

6. (Presently Amended) The method of ~~claim 5, wherein the~~ claim 15, wherein said phage display method employs Escherichia coli as a host cell ~~is Escherichia coli~~.

7. (Previously Added) The method of claim 5, wherein the cDNA expression library is from a mammal cell.

8. (Previously Added) The method of claim 5, wherein the cDNA expression library is from a human cell.

9. (Previously Added) The method of claim 8, wherein the human cell is a human brain cell.

10. (Previously Added) The method of claim 8, wherein the human cell is a human placenta cell.

11. (Presently Amended) The method of ~~claim 5~~ claim 16, wherein the membrane is a nitrocellulose membrane.

12. (Presently Amended) The method of ~~claim 5~~ claim 16, wherein the membrane comprises isopropyl-β-D-thiogalactoside.

13. (Previously Added) The method of claim 5, wherein the chemical cross-linker is selected from the group consisting of glutaraldehyde, hexamethylene diisocyanate, hexamethylene diisothiocyanate, N,N'-poly(methylene)bis(iodoacetamide), N,N'-ethylenebis(maleimide), ethylene glycol bis(succinimidyl) succinate, sulfosuccinimidyl-4-(p-maleimidophenyl) buryrate, and bisdiazobenzidine.

14. (Withdrawn) The method of claim 5, wherein the chemical cross-linker is sulfosuccinimidyl.

15. (New) The method of claim 5, wherein said expressed is by phage display method.

16. (New) The method of claim 15, wherein a membrane is employed to capture phage from plated phage cultures obtained during said phage display method.

SUPPORT FOR THE AMENDMENT

Claims 2 and 4 have been canceled

Claims 5, 6, 11, and 12 have been amended.

Claims 15 and 16 have been added.

Support for the amendment to Claims 5, 6, 11, and 12 is provided by Claims 1-4 and the specification as originally filed. New Claims 15 and 16 are supported by page 5, line 1 to page 10, line 13.

No new matter is believed to have been entered by the present amendments.